

JOINT DARK ENERGY MISSION SCIENCE DEFINITION TEAM

Charge

1 June 2004

Introduction:

The purpose of this group is to develop findings for DOE and NASA that can be used to help assure the optimum scientific return from the Joint Dark Energy Mission (JDEM) and to ensure preparedness beginning development of the mission. The SDT will be drawn from the scientific community that may wish to participate in JDEM and make use of its scientific results. This is a joint NASA/DOE team, with members drawn equally from the relevant astrophysics and high-energy physics communities.

Functions:

The JDEM Science Definition Team (SDT) will provide input for scientific and mission coordination, in the form of technical and scientific findings, to the JDEM program, which is a joint undertaking of the Office of Space Science, NASA Headquarters, and the Office of Science, Department of Energy. The Team will report its findings to the cognizant Program Managers within the Beyond Einstein Program Office at Goddard Space Flight Center, within the Structure & Evolution of the Universe (SEU) Theme in the Astronomy and Physics Division at NASA, and within the Office of High Energy Physics at DOE. In practice, the SDT will also provide input to any future JDEM pre-project planning office. The committee will organize working groups on specific scientific issues as required to carry out its responsibilities. The functions of the SDT are as follows:

1. The SDT will provide input to DOE and NASA on priorities for the science questions of a space-based mission investigating the nature of dark energy.
2. The SDT will produce a Science Requirements Document. This document will include the prioritized science objectives and requirements for the dark energy investigation of the JDEM mission. The science requirements document may optionally also identify strawman plans for parts of the mission. The SDT will also provide input on education and outreach that can best engage the public in this mission.
3. The SDT will discuss all scientific aspects of the JDEM mission. In addition to scientific goals and design requirements, the SDT will provide input to NASA and DOE on topics related to, for example, policy on the scientific use of the satellite during the general observer phase, the operation of the satellite, and data analysis and data archiving standards and policies.
4. The SDT will undertake studies and provide input on topics requested by DOE or NASA or any future JDEM pre-project planning office on science requirements and goals for the dark energy investigation.

The SDT will be disbanded before the issuance of the joint NASA/DOE Announcement of Opportunity (AO) for participation in the JDEM mission. Former members of the SDT may propose without prejudice in response to the AO.

Membership:

The membership of the JDEM Science Definition team will consist of approximately 20 members, selected broadly from all communities interested in studying the nature of dark energy. This includes, but is not limited to, scientists and technologists, observers and theorists, from the high-energy physics community, the space science community, and the ground-based astronomical community. All members will be selected jointly by the Director of the Astronomy and Physics Division, NASA, and the Associate Director for the Office of High Energy Physics, DOE. DOE and NASA will jointly select the Chair or Co-Chairs, who will be civil servants, and the Lead Scientists or Co-Lead Scientists.

Meetings:

The SDT will meet in person approximately two times per year, as required, for (typically) one to two day meetings. Meetings will be called, and agendas will be set, by the SDT Chair. Meetings may alternate among locations in the US.

Funding for Travel:

Travel expenses will be provided for non-local travel by non-civil servants who lack current DOE or NASA support for relevant activities.